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THE FEDERAL CLAY PRODUCT CO.
SUCCESSORS TO
The




American Fire Brick & Clay Co.



MANUFACTURERS
OF . . .

HIGH GRADE FIRE BRICK

OF SHAPES AND SIZES FOR ALL PURPOSES

Fire Brick, Fire Tile, Furnace Linings,
Cupola Blocks, Boiler Settings, Calcined
and Specially Prepared Clay   

OFFICE, WORKS AND MINES:

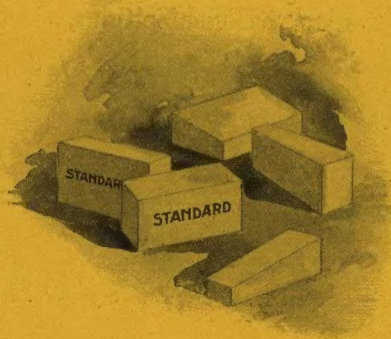
MINERAL CITY, OHIO

U. S. A.



Savage Crown—For use in steel works, glass house furnaces, potters' kilns, heating furnaces and other purposes which require a refractory brick ; is hand moulded, repressed and contains the following mixture of carefully selected refractory clays: 53 per cent. raw weathered flint, 37 per cent. of specially selected calcined clay and 10 per cent. bond or plastic clay of superior quality.

Standard — Will resist an intense heat, well adapted to resist abrasion and will prove a very satisfactory brick for lime, brick, pottery and sewer pipe kilns. Contains a combination of 80 per cent. selected flint clay, 20 per cent. bond clay, is hand moulded and repressed.

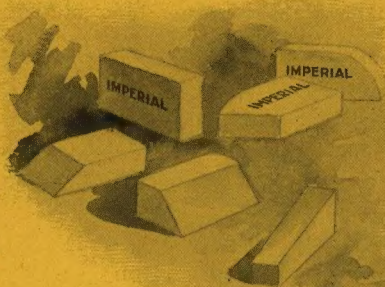


OUR BRANDS

A. F. B. Co. grade has been a favorite from the time we commenced its manufacture; is *Hand Moulded* and contains 50 per cent.

flint clay, with 50 per cent. bond clay. For brick kilns, annealing ovens and boiler settings we know of no better brick.

Imperial grade has received the approval of the trade. It contains 75 per cent. flint and 25 per cent. bond clay and will be found especially suitable for sheet, pair and annealing furnaces in tin plate mills, for boiler settings, all kinds of kiln works, etc. It is machine made, repressed and is a splendid brick to stand heat and abrasion at the same time.



Our **American** grade is machine made and contains from 30 to 40 per cent. flint clay and is a satisfactory brick for many purposes requiring a good, strong brick of reasonable density.

IN PRESENTING this catalogue we include shapes in common use, that we endeavor to keep in stock, in such quantities that we can fill orders promptly. We have an abundance of material equal in quality to any found in the United States, as will be seen by referring to the following analysis of our flint clay made by Mr. Otto Wuth, of Pittsburgh, Pa., the expert chemist:

Water and Organic matter	11.09
Silica	54.76
Alumina	33.03
Protoxide of Iron . . . . .	.69
Lime . . . . .	.50
Magnesia . . . . .	.10
Alkalies . . . . .	.08

In referring to our clay, Mr. Wuth states, unsolicited, that it will produce a *first-class Fire Brick* which will be refractory enough to withstand the highest temperature of the Blast Furnace.

Our facilities enable us to handle large contracts or special orders with promptness and satisfaction.

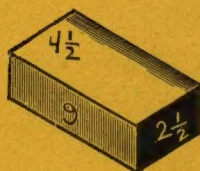
Our patronage being extensive among the largest users of Fire Brick and Fire Clays, for use in furnaces, steel works, glass houses, kilns for lime, pottery, sewer pipe and brick, foundry purposes, annealing ovens and in fact almost every fire use, under varying circumstances, as to fuel, temperature and methods used gives us experience, enabling us on being acquainted with your requirements to furnish material that will give satisfaction.

Hoping that you will favor us with your orders, which we shall earnestly try to merit, we are,

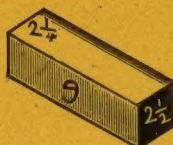
Very respectfully,

THE AMERICAN FIRE BRICK & CLAY CO.
MINERAL CITY, OHIO.

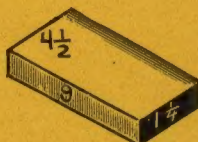
9-inch Brick



Soap



No. 1 Split

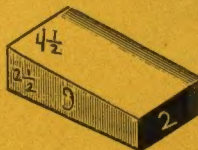


No. 2 Split



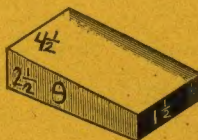
No. 1 Wedge

6 ft. diameter inside.
113 bricks to a circle.



No. 2 Wedge

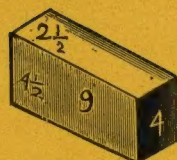
27 in. diameter inside.
56 bricks to a circle.



No. 1 Key

12 feet diameter inside.

113 bricks to a circle.



No. 2 Key

5 feet 3 inches diameter inside.

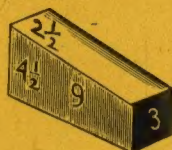
57 bricks to a circle.



No. 3 Key

3 feet diameter inside.

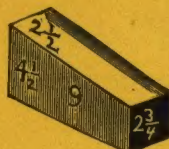
38 bricks to a circle.



No. 4 Key

28 inches diameter inside.

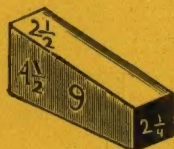
32 bricks to a circle.



No. 5 Key

1 foot 6 inches diameter inside.

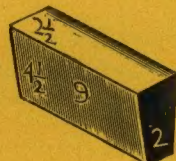
25 bricks to a circle.



No. 1 Side Arch

3 feet diameter inside.

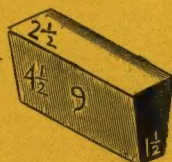
57 bricks to a circle.



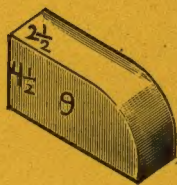
No. 2 Side Arch

1 foot 2 inches diameter inside.

29 bricks to a circle.



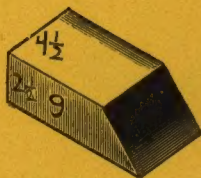
No. 1 Jamb.....



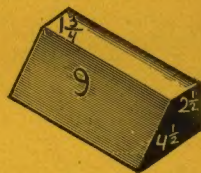
No. 2 Jamb.....



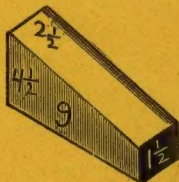
No. 1 End Skew.....



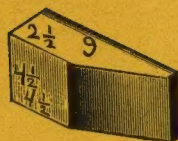
No. 2 Side Skew.....



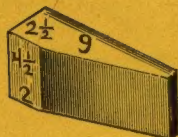
No. 3 Skew Back.....



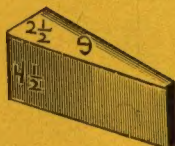
No. 1 Neck Brick



No. 2 Neck Brick



No. 3 Neck Brick



No. 1 Circle Brick

24 inches outside diameter.
15 inches inside diameter.
11 bricks to a circle.



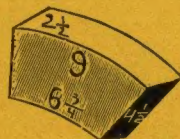
No. 2 Circle Brick

33 inches outside diameter.
24 inches inside diameter.
12 bricks to a circle.



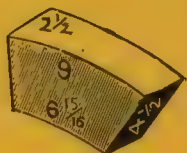
No. 3 Circle Brick

36 inches outside diameter.
27 inches inside diameter.
12 bricks to a circle.



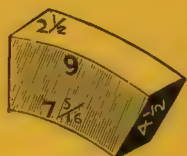
No. 4 Circle Brick

41 inches outside diameter.
32 inches inside diameter.
15 bricks to a circle.



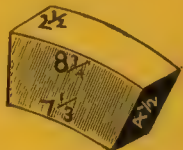
No. 5 Circle Brick

48 inches outside diameter.
39 inches inside diameter.
17 bricks to a circle.



No. 6 Circle Brick

56 inches outside diameter.
47 inches inside diameter.
21 bricks to a circle.



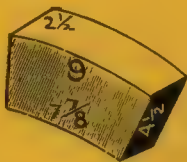
No. 7 Circle Brick

60 inches outside diameter.
51 inches inside diameter.
21 bricks to a circle.



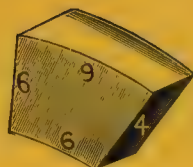
No. 8 Circle Brick

72 inches outside diameter.
63 inches inside diameter.
25 bricks to a circle.



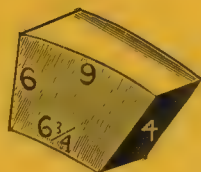
No. 1 Cupola Block

36 inches outside diameter.
24 inches inside diameter.
13 blocks to a circle.



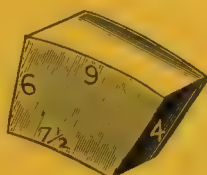
No. 2 Cupola Block

48 inches outside diameter.
36 inches inside diameter.
17 blocks to a circle.



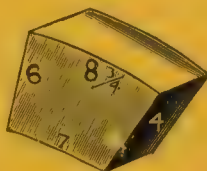
No. 3 Cupola Block

52 inches outside diameter.
40 inches inside diameter.
18 blocks to a circle.



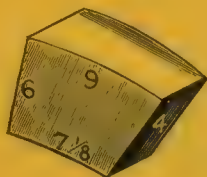
No. 4 Cupola Block

56 inches outside diameter.
44 inches inside diameter.
20 blocks to a circle.



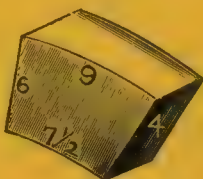
No. 5 Cupola Block

60 inches outside diameter.
48 inches inside diameter.
21 blocks to a circle.

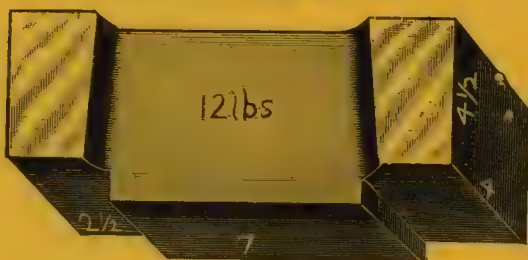


No. 6 Cupola Block

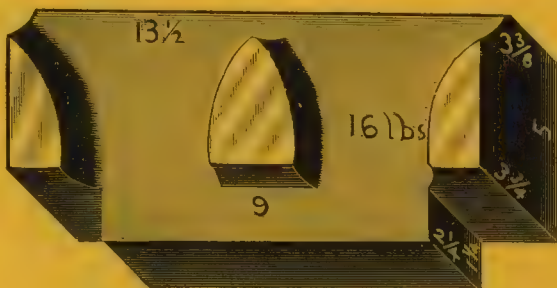
72 inches outside diameter.
60 inches inside diameter.
25 blocks to a circle.



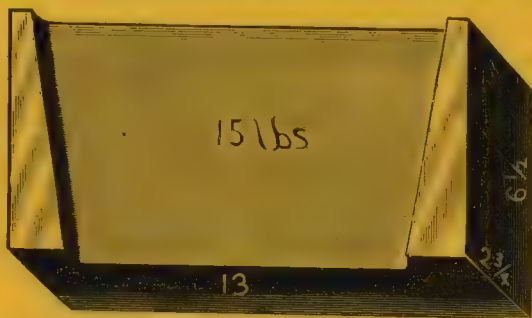
KILN FLOOR BRICK.



Universal — Made in two sizes, 9 inches and 12 inches long.



National — Made in two sizes, 13 inches and 13 1/2 inches long.



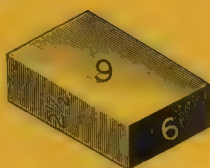
Camp — Other styles and shapes made to order.

Number of Floor Brick required for laying kiln floor in round kilns.

18 ft. diam.	Universal 12 in.	1000	Natl. 13 1/2 in.	860	Camp 13 in.	1400
20 ft. diam.	Universal 12 in.	1200	Natl. 13 1/2 in.	1060	Camp 13 in.	1750
22 ft. diam.	Universal 12 in.	1450	Natl. 13 1/2 in.	1290	Camp 13 in.	2100
24 ft. diam.	Universal 12 in.	1725	Natl. 13 1/2 in.	1535	Camp 13 in.	2510
30 ft. diam.	Universal 12 in.	2700	Natl. 13 1/2 in.	2400	Camp 13 in.	3930
36 ft. diam.	Universal 12 in.	3880	Natl. 13 1/2 in.	3450	Camp 13 in.	5650

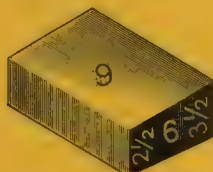
POTTERY KILN BRICK.

Pottery Flat Back Brick

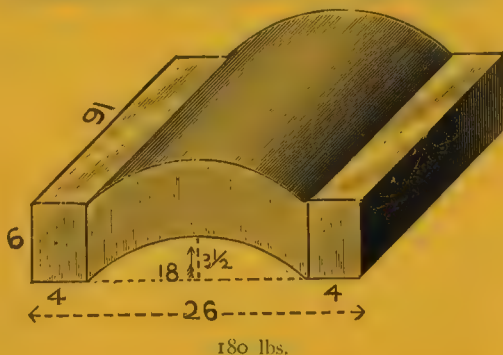


Pottery No. 1 Flat Back Arch Brick

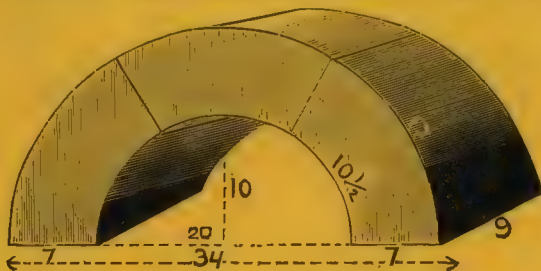
22 inch radius,
56 bricks to a circle.



CHAMPION KILN ARCH—ONE PIECE.



RENKERT KILN ARCH—THREE PIECE SET.



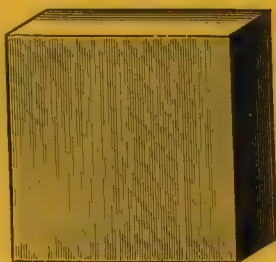
Per piece 70 lbs., per set 210 lbs.

No. 1—18 inches wide, opening at base.

No. 2—20 inches wide, opening at base.

No. 3—22 inches wide, opening at base.

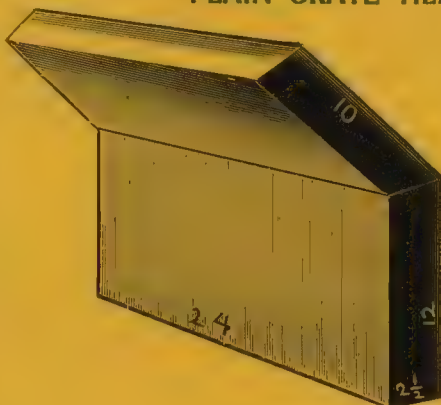
TILE.



12 x 12 x 2 inches.
 12 x 12 x 2½ inches.
 12 x 14 x 2½ inches.
 12 x 16 x 2½ inches.
 12 x 18 x 2½ inches.
 12 x 20 x 2½ inches.
 12 x 22 x 2½ inches.
 12 x 24 x 2½ inches.
 12 x 18 x 3 inches.
 12 x 24 x 3 inches.
 12 x 30 x 3 inches.

Other sizes and shapes made to order.

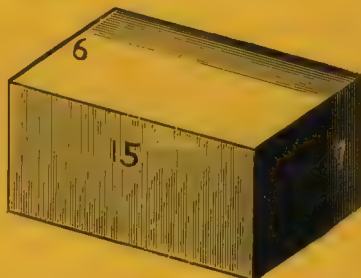
PLAIN GRATE TILE.



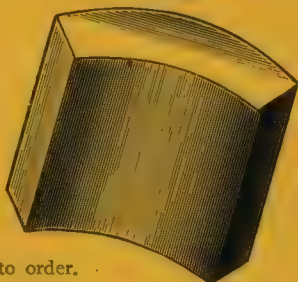
18 x 10 x 2½
 22 x 12 x 2½
 24 x 12 x 2½

Other styles and sizes of grate tile made to order.

Jack Brick.....



Brass Furnace Blocks.....



All sizes made to order.

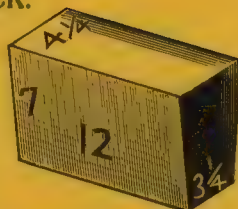
LIME KILN BRICK.

12-inch Arch Brick.....

52 inches outside diameter.

38 inches inside diameter.

37 bricks to a circle.

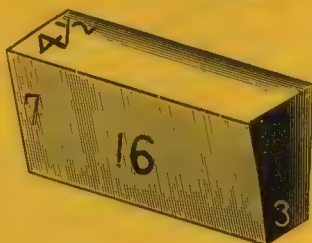


16-inch Arch Brick.....

36 inches outside diameter.

22 inches inside diameter.

24 bricks to a circle.

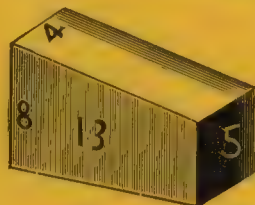


13-inch Key Brick

8 1/4 feet outside diameter.

6 feet inside diameter.

42 bricks to a circle.



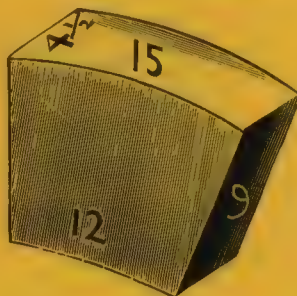
No. 2 Square Kiln Brick.....



Circle Block.....

6 feet inside diameter.

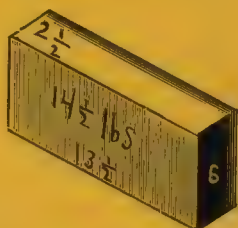
19 bricks to a circle.



Other sizes and shapes made to order.

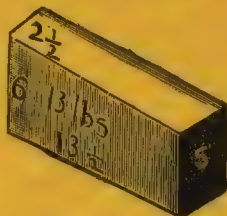
BLAST FURNACE BRICK.

13 1/2-inch Square.....



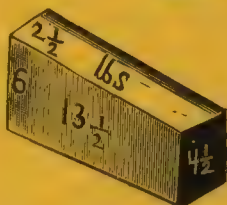
13 1/2-inch No. 1 Key

11 feet 3 inches diameter inside.
85 bricks to a circle.



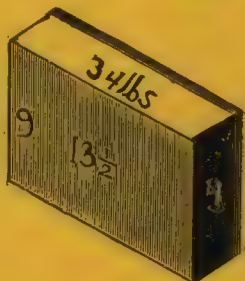
13 1/2-inch No. 2 Key

6 feet 9 inches diameter inside.
57 bricks to a circle.



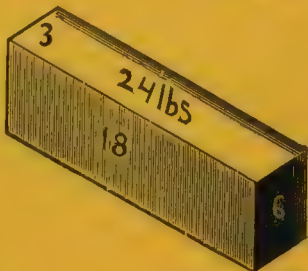
Bridge Blocks.....

Of all sizes.



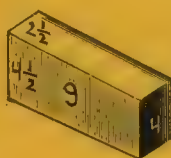
Mill Tile.....

Of all sizes.

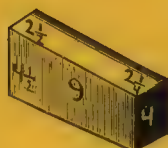


COKE OVEN BRICK AND TILE.

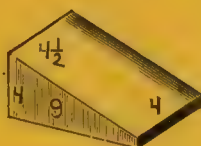
Wall Brick



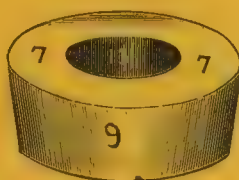
Crown



Skew Back

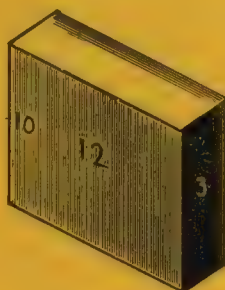


Vent Blocks



Floor Tile

10 inches x 12 inches x 3 inches.
10 inches x 10 inches x 4 inches.



SMOKE STACK LININGS

AND BOILER SETTINGS.

We make circle and key brick specially adapted for use in lining smoke stacks, being hard burned, they are not affected by heat, smoke or moisture, and as we make them in various sizes, they can be made to lay up nicely with good tight joints to fit any diameter.

The saving of labor in lining with this brick is worthy of consideration, as they may be readily laid up without trouble by any ordinary mason. -

When you order stack linings specify inside and outside diameters together with height.

We carry in stock Brick and Tile for boiler setting, from those ordinarily used to the leading patent water tube boilers and are prepared to make on short notice any special shapes or sizes. Estimates cheerfully furnished.



TABLES of 9 inch Wedge, Arch and Key Brick, used in building Arches and Circles, showing the proportions in which the various sizes are combined to form circles of a given diameter:

WEDGE BRICK.					SIDE ARCH BRICK.					9-INCH KEY BRICK.				
Diam.	No. 2 Wedge	No. 1 Wedge	Square	Total	Diam.	No. 2 Arch	No. 1 Arch	Square	Total	Diam.	No. 3 Key	No. 2 Key	No. 1 Key	Total
Ft. In.					Ft. In.					Ft. In.				
2 3	56.	.....	.....	56.	1 2	28.	.....	.....	28.	3 0	38.	.....	.....	38.
2 6	51.	9.	.....	60.	1 6	23.	11.	.....	34.	3 6	30.	.....	.....	42.
3 0	46.	22.	.....	68.	2 0	14.	27.	.....	41.	4 0	22.	.....	.....	46.
3 3	39.	36.	.....	75.	2 6	8.	41.	.....	49.	4 4	13.	.....	.....	50.
4 0	31.	52.	.....	83.	3 0	.....	56.	.....	56.	5 0	4.	.....	.....	54.
4 4	21.	69.	.....	90.	3 6	.....	56.	.....	64.	5 3	.....	.....	.....	57.
5 0	16.	82.	.....	98.	4 0	.....	56.	.....	71.	6 0	.....	.....	.....	63.
5 6	5.	100.	.....	105.	4 6	.....	56.	.....	79.	6 6	.....	.....	.....	67.
6 0	.....	113.	.....	113.	5 0	.....	56.	.....	86.	7 0	.....	.....	.....	71.
6 6	.....	113.	.....	120.	5 6	.....	56.	.....	94.	7 6	.....	.....	.....	75.
7 0	.....	113.	15.	128.	6 0	.....	56.	.....	102.	8 0	.....	.....	.....	80.
7 6	.....	113.	22.	135.	6 6	.....	56.	.....	109.	8 6	.....	.....	.....	84.
8 0	.....	113.	30.	143.	7 0	.....	56.	.....	117.	9 0	.....	.....	.....	88.
8 6	.....	113.	37.	150.	7 6	.....	56.	.....	124.	10 0	.....	.....	.....	93.
9 0	.....	113.	45.	158.	8 0	.....	56.	.....	132.	10 6	.....	.....	.....	97.
9 6	.....	113.	52.	165.	8 6	.....	56.	.....	139.	11 0	.....	.....	.....	101.
10 0	.....	113.	60.	173.	9 0	.....	56.	.....	147.	11 6	.....	.....	.....	105.
10 6	.....	113.	67.	180.	9 6	.....	56.	.....	154.	12 0	.....	.....	.....	109.
11 0	.....	113.	75.	188.	10 0	.....	56.	.....	162.	12 6	.....	.....	.....	113.
11 6	.....	113.	82.	195.	10 6	.....	56.	.....	169.	13 0	.....	.....	.....	117.
12 0	.....	113.	90.	203.	11 0	.....	56.	.....	177.	13 6	.....	.....	.....	122.
12 6	.....	113.	97.	210.	11 6	.....	56.	.....	184.	14 0	.....	.....	.....	126.
13 0	.....	113.	105.	218.	12 0	.....	56.	.....	192.	14 6	.....	.....	.....	130.
13 6	.....	113.	112.	225.	12 6	.....	56.	.....	200.	15 0	.....	.....	.....	134.
14 0	.....	113.	120.	233.	13 0	.....	56.	.....	207.					

32 No. 4 Key Brick to a circle 28 inches diameter. 25 No. 5 Key Brick to a circle 18 inches diameter.

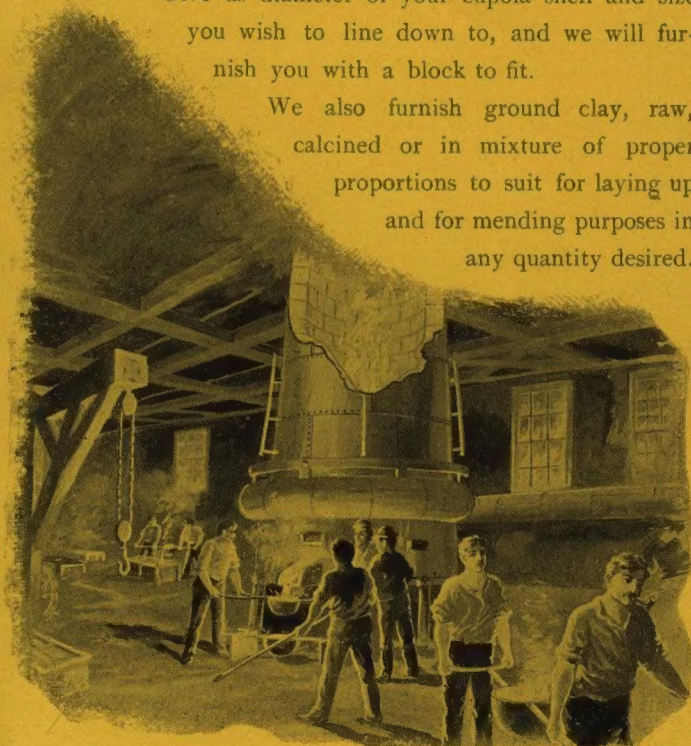
CUPOLA LININGS.

An important branch of our business is the manufacture of Cupola Linings, which we furnish for a variety of uses from New England to the Rocky mountains with the most satisfactory results. Cupola Linings as made by us of our selected clays can be made refractory enough to stand the most intense heat and strong enough to resist abrasion by friction.



We have a variety of shapes and sizes and a line of which in stock to meet almost any demand, and we promptly make to order special shapes and sizes to meet the requirements of our patrons.

Give us diameter of your cupola shell and size you wish to line down to, and we will furnish you with a block to fit.

We also furnish ground clay, raw, calcined or in mixture of proper proportions to suit for laying up and for mending purposes in any quantity desired.





GENERAL INFORMATION.



FIRE BRICK FOR

Blast Furnaces,
Tin Plate Mills,
Heating Furnaces,
Puddling Furnaces,
Gas Furnaces,
Air Furnaces,
Oil Furnaces,
Annealing Ovens,
Sewer Pipe Kilns,
Brick Kilns,
Pottery Kilns,
Lime Kilns,
Gas Generators,
Glass Houses,
Foundry Cupolas,
Boiler Settings,
Flue Linings, and
Special Shapes for
All Classes of Work.
Fire Clay Crude,
Ground or
Calcined in Bags,
Barrels or
Car Loads.



We Solicit your correspondence on any needs in our line.

Our Goods have been thoroughly tested, *time and fire tried* and found satisfactory.

All shapes in the 9 inch series (see pages 5 to 9 inclusive) are rated as 9 inch, and are sold by count, each the same as one full sized 9 inch brick. Other sizes in proportion to 9 inch.

A 9 inch brick (straight) weighs 7 lbs. and contains 100 cubic inches. Six 9 inch bricks will make one square foot of face wall. Fifty-four 9 inch bricks will make one square yard of face wall. Seven and one-half 8½ inch mill or building bricks will make one square foot of face wall. Sixty-eight 8½ inch mill or building bricks will make one square yard of face wall. Thirty-nine 8½ inch mill or building bricks, laid flat will pave one square yard.

To secure the best results, Fire Brick should be laid in the same clay from which they are manufactured.

One ton of ground clay should be sufficient to lay 3,000 ordinary brick.

We have on hand at all times Mill Brick, Paving Brick and Machine Made Brick on which we can quote attractive prices.

When price is made delivered, it is understood to be on full car loads only. We can ship any quantity desired, but do not make delivered prices on less than car load lots.

On shipment by local freight where goods need protection from damage, cost is charged for barrels and packing, the added charge however, will in most instances be less than difference in local freight rates, on goods sent loose.

When goods are bought delivered, consignee will confer a favor, by sending paid expense bill for freight, promptly for credit.

